OIB - P-3 Orion 04/10/17 Science Report

Aircraft:

P-3 Orion (See full schedule)

Date:

Monday, April 10, 2017

Mission: OIB

Mission Location: North Central Gap 03

Mission Summary:

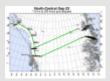
Mission: North Central Gap 03 (high priority, last flown 2013)

This mission, along with the North Central Gap 02 and 03 missions, are primarily designed to fill a gap in altimetry and radar coverage of the north-central portion of the Greenland Ice Sheet. In this flight, we also re- occupy centerlines of the Qeqertarsuap and Upernavik (south), glaciers, we fly centerlines of the Drachmann and Wordie glaciers, and we refly portions of the northwest coast-parallel grid flown from 2010-2012.

Weather across central Greenland was very favorable today. No clouds were encountered below our flight level and nearly all of the day was cloud-free on the ice sheet. All four outlet glacier center flowlines were flown, with only minor turbulence encountered. We also flew one additional center flowline on the west coast (Upernavik Central), instead of turning around and repeating Upernavik South. All instruments performed well. A minor issue was detected for the primary DMS camera so we switched to the backup camera half-way through the flight. ATM reports 100% data collection. The JPL crew collected a lot of 360° footage, and we also collected 360° footage from a camera that was mounted at the bottom of the drop-sonde tube.

Images:

Map of today?s mission.



Map of today?s mission.

Read more

Possibly capsized iceberg discharged from Upernavik South



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An iceberg-choked periglacial lake along the south flank of Drachmann



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View through a P-3 window of a small grounded portion of the terminus of



Read more

Jefferson Beck (NASA) inspecting the aft-mounted 360° Sphericam after



Read more

Submitted by:

Joseph MacGregor on 04/19/17

Related Flight Report:

P-3 Orion 04/10/17

Flight Number:

Science Flight #19- North Central Gap 3

Payload Configuration:

OIB Arctic

Nav Data Collected:

No

Total Flight Time:

7.8 hours

Submitted by:

Kelly Griffin on 04/10/17

Flight Segments:

| From: | BGTL | То: | BGTL | | | |
|--------------------|--|---------|------------------|--|--|--|
| Start: | 04/10/17 11:00 Z | Finish: | 04/10/17 18:45 Z | | | |
| Flight Time: | 7.8 hours | | | | | |
| Log Number: | <u>17P006</u> | PI: | Nathan Kurtz | | | |
| Funding Source: | Bruce Tagg - NASA - SMD - ESD Airborne Science Program | | | | | |
| Purpose of Flight: | Science | | | | | |

Flight Hour Summary:

| | 17P006 |
|--------------------------------|--------|
| Flight Hours Approved in SOFRS | 333.6 |
| Total Used | 307.1 |
| Total Remaining | 26.5 |

| | | 17P006 Flight Reports | | | | | | |
|------------|--|-----------------------|----------|------------------|--------------------|--|--|--|
| Date | Fit # | Purpose of Flight | Duration | Running Total | Hours Remaining | | | |
| 02/24/17 | Airworthiness Test Flight | Check | 1 | 1 | 332.6 | | | |
| 02/26/17 | Project Test Flight #1 | Check | 4.9 | 5.9 | 327.7 | | | |
| 02/27/17 | Project Test Flight #2 | Check | 3 | 8.9 | 324.7 | | | |
| 03/07/17 | Transit Flight | Transit | 8.2 | 17.1 | 316.5 | | | |
| 03/09/17 | Science Flight #1 - North Pole Transect | Science | 8 | 25.1 | 308.5 | | | |
| 03/10/17 | Science Flight #2 - Laxon Line | Science | 8.5 | 33.6 | 300 | | | |
| 03/11/17 - | Science Flight #3 - Chukchi West Line | Science | 8 | 41.6 | 292 | | | |
| 03/12/17 - | Science Flight #4 - North Beaufort Loop Line | Science | 8.1 | 49.7 | 283.9 | | | |
| 03/14/17 - | Science Flight #5 - East Beaufort Loop Line | Science | 8 | 57.7 | 275.9 | | | |
| 03/20/17 | Science Flight #6 - Sea Ice South Basin Transect (to Thule) | Science | 8.1 | 65.8 | 267.8 | | | |
| 03/22/17 | Science Flight #7 - North Flux 02 | Science | 7.9 | 73.7 | 259.9 | | | |
| 03/23/17 | Science Flight #8 - Zig Zag West Line | Science | 7.9 | 81.6 | 252 | | | |
| 03/24/17 | Science Flight #9 - CryoVEx Line | Science | 5.8 | 87.4 | 246.2 | | | |
| 03/27/17 | Science Flight #10 - Northwest Coastal A Line | Science | 7.4 | 94.8 | 238.8 | | | |
| 03/28/17 | Science Flight #11 - North Central Cap 01 Line | Science | 7.6 | 102.4 | 231.2 | | | |
| 03/29/17 | Science Flight #12 - Ellesemere Island 01 Line | Science | 7.6 | 110 | 223.6 | | | |
| 03/30/17 | Science Flight #13 - Ellesemere South Line | Science | 7.9 | 117.9 | 215.7 | | | |
| 03/31/17 | Science Flight #14- Alexander- Petermann Line | Science | 6.5 | 124.4 | 209.2 | | | |
| 04/03/17 | Science Flight #15- Zachariae 79N Fram Straight and BGTL ENSB Transit | Science | 7.4 | 131.8 | 201.8 | | | |
| 04/05/17 | Science Flight #16 - Svalbard North Line (High Priority) | Science | 7 | 138.8 | 194.8 | | | |
| 04/06/17 | Science Flight #17- Svalbard South Mission (High Priority) | Science | 8.5 | 147.3 | 186.3 | | | |
| 04/07/17 | Science Flight #18- Combined Zig Zag East Mission and Transit ENSB to BGTL | Science | 8.3 | 155.6 | 178 | | | |
| 04/10/17 | Science Flight #19- North Central Gap 3 | Science | 7.8 | 163.4 | 170.2 | | | |
| 04/11/17 | Science Flight #20- CryoVex 2 (High Priority) | Science | 7.8 | 171.2 | 162.4 | | | |
| 04/12/17 | Science Flight #21-Northwest Coastal C | Science | 7.2 | 178.4 | 155.2 | | | |
| 04/13/17 | Science Flight #22-North Glaciers 02 Prime (High Priority) | Science | 8.2 | 186.6 | 147 | | | |
| 04/14/17 | Science Flight #23-IceSat-2 North/CryoSat-2 SARIn | Science | 7 | 193.6 | 140 | | | |
| 04/17/17 | Science Flight #24-Humboldt 01(High Priority) | Science | 7.8 | 201.4 | 132.2 | | | |
| 04/19/17 | Science Flight #25-Sea Ice - South Canada Basin (MediumPriority) | Science | 7.8 | 209.2 | 124.4 | | | |
| 04/20/17 | Transit Flight to Kangerlussuaq | Transit | 3 | 212.2 | 121.4 | | | |

| 04/21/17 | Science Flight #26-Southeast Coastal | Science | 8 | 220.2 | 113.4 |
|----------|---|---------|-----|-------|-------|
| 04/22/17 | Science Flight #27-Helheim- Kangerd | Science | 7.8 | 228 | 105.6 |
| 04/24/17 | Science Flight #28-Geikie 01 (High Priority) | Science | 8 | 236 | 97.6 |
| 04/26/17 | Science Flight #29-Devon-Bylot (Medium Priority) | Science | 7.9 | 243.9 | 89.7 |
| 04/28/17 | Science Flight #30-Penny 01 (Medium Priority) | Science | 6 | 249.9 | 83.7 |
| 04/29/17 | Science Flight #31-Thomas - Jakobshavn 01 | Science | 8.4 | 258.3 | 75.3 |
| 05/01/17 | Science Flight #32-Thomas - Jakobshavn-Eqip-Store | Science | 8.4 | 266.7 | 66.9 |
| 05/02/17 | Science Flight #33-Thomas - ICESat-2 Central | Science | 7.9 | 274.6 | 59 |
| 05/03/17 | Science Flight #34-Thomas - Southwest Coastal A | Science | 8.3 | 282.9 | 50.7 |
| 05/05/17 | Science Flight #35-Helheim- Kangerdlugssuaq Gap B (High Priority) | Science | 8.2 | 291.1 | 42.5 |
| 05/06/17 | Science Flight #36-Helheim-K- EGIG-Summit | Science | 8 | 299.1 | 34.5 |
| 05/08/17 | Science Flight #37-Southeast Glaciers 01 (High Priority) | Science | 8 | 307.1 | 26.5 |

Flight Reports began being entered into this system as of 2012 flights. If there were flights flown under an earlier log number the flight reports are not available online.

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